Appl. No. 10/813,828 Amdt. Dated Jan. 24, 2007 Reply to Office Action of Sept. 27, 2006 Attorney Docket Code: DMF-227-B





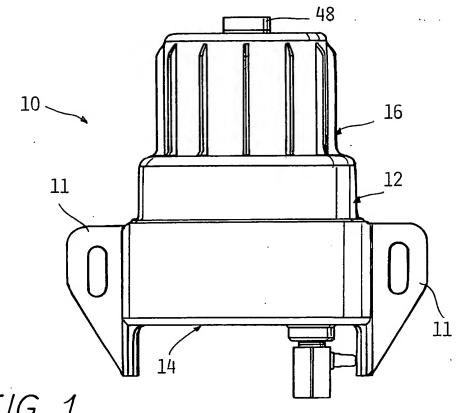
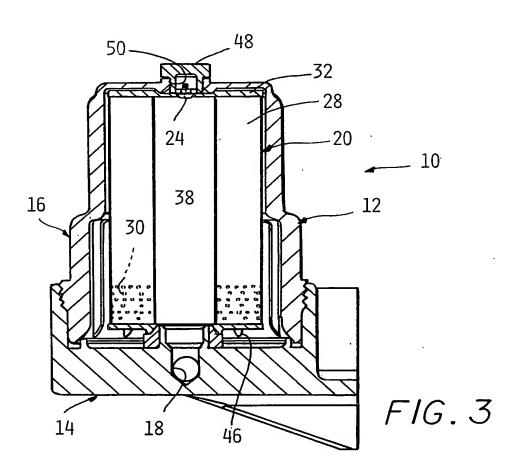


FIG.1



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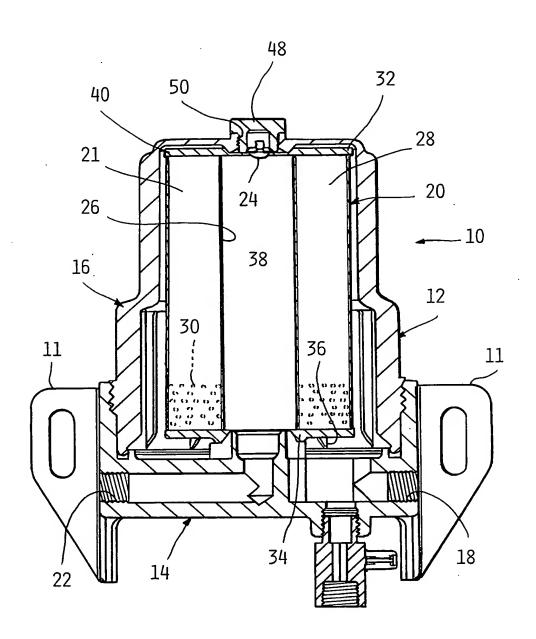
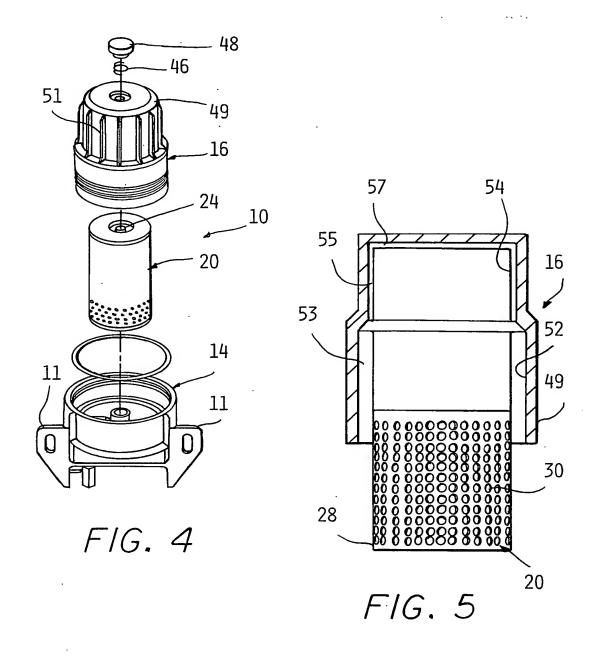
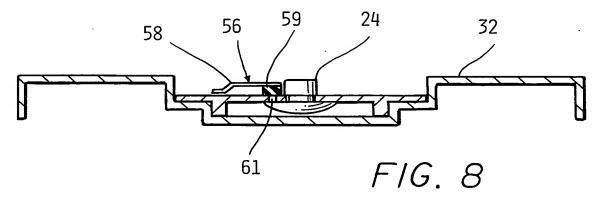


FIG. 2

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REPLACEMENT SHEET

## **FILTER IN HOUSING**

<b>VOLUME 1 — LARGE VOLUME</b>		
CLEARANCE	0.5	INCH
SMALL DIA	3.82	INCH
LARGE DIA	4.82	INCH
HEIGHT	3.25	INCH
VOLUME 1	22.05	CUBIC INCH
VOLUME 1	0.36	LITERS

VOLUME 2 — SMALL VERTICAL VOLUME		
CLEARANCE	0.15	INCH
SMALL DIA	3.82	INCH
LARGE DIA	4.12	INCH
HEIGHT	1.5	INCH
VOLUME 1	2.81	CUBIC INCH
VOLUME 1	0.05	LITERS

VOLUME 3 — VOLUME ABOVE FILTER		
LARGE DIA 4.12 INCH		
HEIGHT	0.2	INCH
VOLUME 1	2.67	CUBIC INCH
VOLUME 1	0.009	LITERS

TOTAL	0.42	LITERS
VOLUME =	0.42	FILEKO

## **AIR VOLUME & HEIGHT CALCULATIONS**

INITIAL NEW FILTER — NO FUEL		
P1 = 1 atm		
T1 = .	294	K
V1 =	0.42	LITER

CLEAN AT SYSTEM PRESSURE		
P2 =	116	PSI
P2 =	7.888	atm
T2 =	333	К
V2 =	0.0597528	LITERS
V2 =	3.646298	CUBIC INCH
HEIGHT BELOW TOP		

SEEING IS BELIEVING END POINT		
P3 =	188	PSI
P3 =	12.784	atm
T3 =	333	K
V3 =	0.066868	LITERS
V3 =	2.249848	CUBIC INCH
HEIGHT BELOW TOP		

DIFFERENCE	MCUEC
IN HEIGHT	INCHES

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REPLACEMENT SHEET

## **FILTER IN HOUSING**

VOLUME 1 — LARGE VOLUME		
CLEARANCE	0.375	INCH
SMALL DIA	3.82	INCH
LARGE DIA	4.57	INCH
HEIGHT	2.75	INCH
VOLUME 1	13.59	CUBIC INCH
VOLUME 1	0.22	LITERS

VOLUME 2 — SMALL VERTICAL VOLUME		
CLEARANCE	0.1	INCH
SMALL DIA	3.82	INCH
LARGE DIA	1.02	INCH
HEIGHT	2	INCH
VOLUME 1	2.46	CUBIC INCH
VOLUME 1	0.04	LITERS

VOLUME 3 — VOLUME ABOVE FILTER		
LARGE DIA	4.02	INCH
HEIGHT	0.2	INCH
VOLUME 1	2.54	CUBIC INCH
VOLUME 1	0.01	LITERS

## **AIR VOLUME & HEIGHT CALCULATIONS**

INITIAL NEW FILTER — NO FUEL		
P1 = 1 atm		
V1 =	0.27	LITERS

CLEAN AT SYSTEM PRESSURE			
P2 =	60	PSI	
P2 =	4.08	atm	
V2 =	0.066518	LITERS	
V2 =	4.059198	CUBIC INCH	
HEIGHT BELOW TOP	2 INCHES		

SEEING IS BELIEVING END POINT				
P3 =	80	PSI		
P3 =	5.44	atm		
<b>V</b> 3 =	0.049889	LITERS		
<b>V</b> 3 =	3.044398	CUBIC INCH		
HEIGHT BELOW TOP	FULL - AT TOP			

DIFFERENCE	2	INCHEC
IN HEIGHT		INCHES